

Population and Social Processes Branch
Section: Epidemiology

Date Run: 02/07/04

PUBLIC ABSTRACTS

Grant: 5D43TW006180-02

Program Director: CHON-LEE, ANGIE J

Principal Investigator: WEEKS, DANIEL E PHD

Title: India-US Research Training Program in Genetics

Institution: UNIVERSITY OF PITTSBURGH AT PITTSBURGH, PA
PITTSBURGH

Project Period: 2002/09/19-2007/08/31

DESCRIPTION (provided by applicant): This Training Program involves an international collaboration between faculty members in the Department of Human Genetics at the University of Pittsburgh in the US and members of The Chatterjee Group-Indian Statistical Institute Centre for Population Genomics (CpG) in Calcutta, India. The overarching goal is to help in genetic-epidemiological capacity building efforts in India. The training program consists a core program of pre- and post-doctoral training, supplemented by various feeder programs (short-term training Workshops and Fellowships), to enhance capacity building and expertise in genetic epidemiology and ethical conduct of human genetics research in India. To obtain a high level of value addition to the training program, the core program will initially be built around an ongoing, ethically approved, genetic epidemiological study in India, the CpG's Marwari Cardiovascular Study. The major loci of the training program will be on statistical and computational genomics, and molecular genomics. The Specific Aims are: 1. To provide multidisciplinary training in genetic epidemiology to three pre- and two post-doctoral trainees from India. Training will be provided both in India (CpG and its affiliate institutions) and in the U.S. (University of Pittsburgh). 2. To provide five short-term (4 weeks) Fellowships to scientists engaged in research at CpG and its affiliate institutions to obtain training in the U.S. in specific frontline areas of human genetics. 3. To conduct two intensive short-term training Workshops in India on human genetics, with emphasis on statistical methods in genetic epidemiology and ethical conduct of human genetics research. 4. To offer advanced research training support ("re-entry" funding) to our post-doctoral trainees after completion of their post-doctoral training in Pittsburgh. These re-entry grants will enable our trainees to initiate independent human genetics research projects related to ongoing collaborative research at CpG. This program will help generate well-trained personnel for initiating large-scale genetic epidemiological studies of public health significance in India. Through these training programs, collaborations among scientists in India and the U.S.A. will be initiated in human genetics.

Grant: 1F31AG021872-01
Program Director: CHON-LEE, ANGIE J
Principal Investigator: PATEL, KUSHANG V MPH
Title: Minority Predoctoral Fellowship Program
Institution: UNIVERSITY OF TEXAS MEDICAL BR GALVESTON, TX
GALVESTON
Project Period: 2003/01/06-2005/01/05

DESCRIPTION (provided by applicant): The purpose of the proposed research is to use the Disablement Process model to examine mechanisms through which neighborhood characteristics influence the development of disability and the risk of mortality in older Mexican Americans. This project will use longitudinal data from the Hispanic Established Population for the Epidemiological Study of the Elderly (Hispanic EPESE), a probability sample of 3,050 older Mexican Americans residing in five southwestern states. These data will be geocoded and merged with 1990 and 2000 US Census data. Primary outcomes include disability & mortality while secondary outcomes include medical conditions, cognitive & sensory impairments, and lower body function. The following are specific aims for the proposed project: Aim 1. Determine whether neighborhood socioeconomic characteristics and neighborhood assimilation (lower percent concentration of Mexican Americans) are associated with stages of the Disablement Process model (pathology >>> impairment >>> functional limitation >>> disability) and mortality. Aim 2. Determine whether changes in neighborhood socioeconomic characteristics and percent concentration of Mexican Americans between 1990 and 2000 correlate with stages of the Disablement Process model (pathology >>> impairment >>> functional limitation >>> disability) and mortality.

Grant: 1K02AG019736-01A2
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: OTTENBACHER, KENNETH J PHD
Title: Independent Scientist Award
Institution: UNIVERSITY OF TEXAS MEDICAL BR GALVESTON, TX
GALVESTON
Project Period: 2003/05/01-2008/04/30

DESCRIPTION (provided by applicant): The candidate (Kenneth J. Ottenbacher) holds a faculty position at the University of Texas Medical Branch (UTMB) in Galveston, Texas, that involves several administrative roles including: Vice Dean in the School of Allied Health Sciences, Director of the Division of Rehabilitation Sciences, and Associate Director of the Sealy Center on Aging. The K02-Award will allow Dr. Ottenbacher to reduce his administrative responsibilities and focus additional time on research. K02 funding will permit him to expand his examination of the disablement process in older adults. His current research is funded by grants from the National Institute on Aging and, more recently, the American Heart Association. Specifically, Dr. Ottenbacher will systematically explore the relationship between functional status and two components of the disablement process associated with quality of life - patient satisfaction and participation in community and social/personal activities (as defined in the World Health Organization's, International Classification of Functioning, Disability and Health). The immediate goals for the K02 include: 1) reduce administrative responsibilities to a less than 25% time commitment, 2) increase publication rate by 20% per year for the next four years, and 3) increase amount of externally funded grant dollars by 100% by end of K02-award. These goals will be accomplished by permanent resignation of his administrative role as Vice Dean in the School of Allied Health Sciences and reassignment of other responsibilities, including transferring management of a Health Services Resources Administration training grant, for which he is currently PI, to another faculty member. These changes will allow Dr. Ottenbacher to devote a minimum of 75% time to research and achieve his long term goals of establishing a program of externally funded research supported by multiple R01 type grants that contributes to the understanding of older adults with disabilities.

Grant: 1K24AG021507-01
Program Director: CHON-LEE, ANGIE J
Principal Investigator: GILL, THOMAS M MD
Title: Research Training in Disability & Disabling Disorders
Institution: YALE UNIVERSITY NEW HAVEN, CT
Project Period: 2003/01/15-2007/12/31

DESCRIPTION (provided by applicant): The specific aims of this Midcareer Investigator Award in Patient-oriented Research are: (1) to further establish the candidate's independent patient-oriented research program in the epidemiology and prevention of disability among community-living older persons; and (2) to establish a formal mentorship program for junior investigators, across disciplines, who are pursuing patient-oriented aging research related to disability and disabling disorders. This includes functional assessment in general as well as the functional consequences of highly prevalent disease-specific conditions such as arthritis, heart disease, diabetes, stroke, cancer, depression, and dementia. The candidate's ultimate objective is to build a premier program in patient-oriented research related to disability and disabling disorders. During the past ten years, the candidate has established a highly successful and independent patient-oriented research program addressing fundamental issues related to the epidemiology and prevention of disability. A K24 Award will permit the candidate to further advance the scientific knowledge base of this serious and pervasive problem in geriatric medicine by affording him the protected time to complete the patient-oriented research projects proposed in this application. This program of research, in turn, will provide the platform for the candidate's greatly expanded mentorship program, which will include didactic training, hands-on research mentorship, and a research infrastructure (data analytic and research assistant support). The candidate plans to accept two to three junior investigators into the program during each of the first two years. Subsequently, the number of accepted candidates per year will vary to achieve the ultimate goal of having 5 to 6 active trainees at any one time. The Yale environment provides the ideal setting, replete with interdisciplinary research and training programs, interdisciplinary expertise and collaboration, and resources (e.g., methodological consultation, biostatistical support, access to study populations and databases) to foster the candidate, the proposed research projects, and the mentorship program. In summary, the candidate's accomplishments in patient-oriented research, his ability and commitment to mentoring junior investigators, and the research and training strengths of Yale combine to provide an ideal context for successfully carrying out the specific aims of this proposal.

Grant: 5K25AG020148-02
Program Director: CHON-LEE, ANGIE J
Principal Investigator: PALMER, RAYMOND F PHD
Title: Trajectories of Functional Ability in Diverse Groups
Institution: UNIVERSITY OF TEXAS HLTH SCI CTR SAN SAN ANTONIO, TX
ANT
Project Period: 2002/09/01-2007/08/31

DESCRIPTION (provided by applicant): Age-related functional ability is a dynamic state known to change over time. While there is some knowledge about the events and conditions predictive of functional decline, there is a gap in our understanding of individual trajectories or rates of change of functional ability over time. The goal of this project is to examine antecedent predictors and mediating processes of individual trajectories of change in functional ability across diverse populations. To address error bias, state-of-the-art statistical methodologies will be utilized including latent growth curve, measurement models and missing data strategies. Utilization of these methods will provide unbiased estimates of the rates of change (e.g. the pace and velocity) in functional ability over time. The long-term goals of this project will assess how change in age-related functional ability differs across various ethnic groups and social strata. This work will uncover the biobehavioral mediating mechanisms responsible for function decline. The results will ultimately provide a basis for informing intervention efforts aimed at preventing disabilities. While the candidate possesses the appropriate methodological skills necessary to pursue the proposed research agenda, there is a considerable gap in biomedical experience and theoretical knowledge in geriatrics and gerontology. The major career development objectives of this proposal will provide a solid background in aging studies. This will be accomplished two ways; 1) through formal didactic course work in gerontology, and 2) immersion in mentored research projects addressing change in functional ability. The training will provide the candidate with the necessary medical, biological, and sociological training in aging research that will lead to innovative research as an independent researcher in the area of functional ability. The University of Texas Health Science Center San Antonio (UTHSCSA) has developed nationally recognized education and training programs in aging and geriatrics. Here, the training will be obtained through a series of formal gerontology courses, seminars, workshops, and frequent contact with widely experienced mentors where a series of research projects are proposed.

Grant: 5P01AG010120-11
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: FOGEL, ROBERT W PHD
Title: Early Indicators of Later Work Levels, Disease and Death
Institution: NATIONAL BUREAU OF ECONOMIC RESEARCH CAMBRIDGE, MA
Project Period: 1992/03/05-2006/08/31

DESCRIPTION (provided by applicant): The completed life-cycle Union Army data set is based on 35,570 men out of a randomly drawn sample of 39,616 males who were mustered into the Union Army during 1861-1865. Socioeconomic and biomedical histories of the recruits from childhood to death have been created by linking together information from different sources. The specific aims of this program project are: 1) to investigate the impact of socioeconomic and biomedical insults during developmental, middle-life, and older ages on the onset of specific chronic diseases at middle and late ages, on the capacity to work during these ages, on the demand for retirement, and on waiting time to death from specific causes; 2) to chart the way in which these life-cycle interactions have changed with successive cohorts that reached age 65 during the twentieth century; 3) to chart the way in which these life-cycle interactions have changed for different races and different socioeconomic groups; 4) to study the impact of familial factors (environmental and genetic elements taken together) on mortality, health in later life, and exceptional longevity; 5) to estimate what types of public health interventions have been most effective in lowering mortality rates and improving health; 6) to expand the range of biomedical and socioeconomic factors that can be considered in the life-cycle Union Army data set by linking it to the 1880 census, which provides health information, and by linking it to data on the epidemiological characteristics of cities and of wards in the late 1800s and early 1900s and 7) to create three new life-cycle samples, one for black Union Army veterans, one for men rejected for service from the Union Army, and one for Union Army veterans found in a large, previously, collected data set gathered from published U.S. family histories. The first two data sets will permit us to examine populations not represented in the life-cycle Union Army data set, the second sample will permit us to consider more fully racial differences in the aging process, and the third sample will allow us to control for familial characteristics.

Grant: 1P01AG023028-01
Program Director: CHON-LEE, ANGIE J
Principal Investigator: SUSSER, EZRA S DPH
Title: Early Determinants of Adult Health
Institution: COLUMBIA UNIVERSITY HEALTH SCIENCES NEW YORK, NY
Project Period: 2003/09/30-2008/08/31

DESCRIPTION (revised): Tantalizing findings have emerged from epidemiologic studies to suggest that the prenatal period may influence disease risk in adult life. Birthweight has received particular attention; low birthweight may increase the risk of cardiovascular and neuropsychiatric diseases, high birthweight may increase risk of breast cancer. While intriguing, the existing literature on birthweight and adult health outcomes has not adequately addressed (1) potential confounding by family factors; (2) the importance of other measures of fetal growth; (3) potential biologic mechanisms; (4) the independent effect of maternal characteristics and exposures; (5) the contribution of postnatal growth; and (6) potential mediation by adult risk factors.

The Early Determinants of Adult Health (EDAH) Project will address these issues using an integrative approach to investigate early determinants of adult health in three research projects: a cardiovascular risk (CVD) Project, a breast cancer risk (BC) Project, and a neuropsychiatric (NP) Project. We will recruit offspring of pregnant women who were enrolled during 1959 to 1967 in two birth cohorts: a New England cohort (Boston and Providence sites of the Collaborative Perinatal Project) and a California cohort (Child Health and Development Study). The offspring are now 37-45 years old—an ideal age to start measuring intermediate markers and following for adult diseases. We will assess two complementary samples: 1. a Sibling sample which will enable us to control for family factors such as socioeconomic status, and 2. a Single Child sample of low and high birthweight which will ensure sufficient statistical power at the tail ends of the birthweight distribution. The total combined sample is 2,500 individuals (Sibling sample 2,000 and Single Child sample 500). An important feature of the study is the use of sibling controls where possible to avoid residual confounding by unmeasured family factors and socioeconomic status. The study population will include 200 same-sex sibling sets (of which at least one member is of low birth weight) for a total of 400 study subjects. Exposure information will be derived from prospectively collected pre and postnatal data on mothers, infants, and childhood growth, as well as from serologic analysis of archived maternal prenatal sera. We will combine these pre and postnatal data with the adult interview and clinical data in the three health domains.

The EDAH is a collaborative research program which cuts across birth cohorts, academic institutions, and scientific domains. The project will be conducted as partnership of research teams at Columbia and Harvard Universities, with California investigators also playing a leading role. In addition to the CVD, BC, and NP Projects, it includes four Cores: the Administrative and Scientific Leadership (ASL) Core, the Location and Assessment (LA) Core, the Biostatistics and Data Management (BDM) Core, and the Serology/Hormone (S/H) Core. Expenses for the ASL Core are partly covered under the proposal. For the other Cores, expenses are entirely contributed by the collaborating institutions. By bringing together expertise across institutions and scientific disciplines, and combining two large birth cohorts to implement a novel design, the study provides an unparalleled opportunity to answer questions about early antecedents of chronic disease.

Grant: 5R01AG018369-03
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: BERKMAN, LISA F BA
Title: Neighborhood Effects on Health and Functioning of Elders
Institution: HARVARD UNIVERSITY (SCH OF PUBLIC BOSTON, MA
HLTH)
Project Period: 2001/09/01-2004/08/31

The objective of this research is to understand the ways in which neighborhoods influence trajectories of physical and cognitive functioning and health of older men and women. Although much is known about the impact of social conditions and behaviors on the health and well-being of the elderly, less is understood about the residential environments which help to shape those conditions and behaviors. We test a model in which specific characteristics of neighborhoods or communities in which an older person lives can either enable the maintenance of functioning and independent living and serve to promote successful aging or may prove to be deleterious for health and functioning. This project is based on longitudinal data from the New Haven and Duke EPESE (Established Populations for the Epidemiologic Study of the Elderly) a cohort studies. The New Haven EPESE is a study of 2812 men and women 65 and older living in New Haven in 1982 and under continuous surveillance through 1994. The Duke EPESE is a study of 4,162 men and women living in the Piedmont, 5 county region of North Carolina, interviewed in 1986 and followed through 1996. We propose to merge data from these cohorts with ecological-level data from multiple sources including the census, government documents and historical information from the New Haven Regional Data Cooperative. The specific aims of the study are: A) to refine an innovative conceptual model and set of measures of neighborhood characteristics. Our proposed model is 1) multidimensional spanning social and economic conditions to service-related and physical characteristics and is 2) germane to the study of the elderly. B. to examine the influence of neighborhood conditions on five primary health outcomes using multilevel modeling incorporating both ecological and individual level variables. The five outcomes are: 1) physical functioning, 2) cognitive functioning, 3) mortality, 4) self-rated health and 5) nursing home admissions. C) to identify behavioral (e.g. alcohol and tobacco consumption physical activity) and psychosocial (e.g. social networks, fear of crime, social engagement) pathways through which neighborhood characteristics affect health and functioning. D) to identify particular subgroups of older men and women who may be particularly vulnerable to the effects of neighborhood conditions. We hypothesize that frail and economically disadvantaged older men and women may be at particularly high risk.

Grant: 1R01AG023397-01
Program Director: CHON-LEE, ANGIE J
Principal Investigator: BUKA, STEPHEN L
Title: Pathways Linking Education/Health in Middle Adulthood
Institution: HARVARD UNIVERSITY (SCH OF PUBLIC BOSTON, MA
HLTH)
Project Period: 2003/09/30-2007/08/31

DESCRIPTION (provided by applicant): Research on the association between education and health has not been able to escape the criticism that factors other than education are responsible for this repeatedly observed, but potentially spurious, association. If the association between education and health is causal, the pathways through which education impact health remain to be fully elucidated. This application seeks to 1) obtain an estimate of the effect of education on multiple adult health outcomes independent of several determinants of both schooling and later adult health, and 2) evaluate the contribution of several potential pathways hypothesized to account for the association between education and health. This proposal is submitted by investigators from developmental and social epidemiology, medicine, health education and literacy, economics, psychology and biostatistics, and is based on adult follow-up studies of the New England cohorts of the National Collaborative Perinatal Project. The first aim is to conduct analyses of data recently obtained from a family study of 2,000 subjects who have been followed from birth through age 40; these analyses will incorporate a detailed measure of adult health status, prospective measures of social, familial, and individual determinants of education that were collected between 1959 and 1976, and a sibling design to account for potential unmeasured familial variables. In these analyses we will determine the 'adjusted' effects of education on the following health outcomes: diagnoses of cancer, cardiovascular disease, asthma and diabetes; self-rated health; and behavioral risk factors including current and lifetime indicators of tobacco use and substance abuse. We will also test the hypothesis that psychological processes (depression, anxiety, perceived social status, and perceived stress) mediate the association between education and health. The second and third aims of this study involve new data collection from 800 of these 2,000 subjects. Aim two focuses on elucidating the causal effects of education on biological precursors of cardiovascular disease and diabetes. The third aim will be to investigate the role of education in improving health through enhancement of functional literacy skills. The prospective nature of this study, the comprehensive assessment of parental and childhood variables, and the hypothesis-driven tests of causation and potential mechanisms make this project uniquely suited to evaluate the link between education and improved health outcomes.

Grant: 5R01AG019637-02
Program Director: CHON-LEE, ANGIE J
Principal Investigator: COSTA, DORA L MA
Title: Older Age Health and Longevity: A Long-Term View
Institution: NATIONAL BUREAU OF ECONOMIC RESEARCH CAMBRIDGE, MA
Project Period: 2002/09/01-2007/08/31

DESCRIPTION (provided by applicant): Mortality rates at older ages have been falling throughout the twentieth century. By 2050 at least 20 percent of the population of the United States is expected to be older than 64. The consequences of mortality decline for older age health are still disputed. One view holds that rising longevity may increase both chronic disease and disability rates. Another view holds that the onset of both chronic disease and disability rates may be postponed. Alternatively, even though declines in mortality may increase the prevalence of chronic disease rates, the rate of progression of chronic disease and therefore of disability may fall. Although the short-run consequences of mortality declines for older age health may differ from the long-run consequences, the evidence suggests that in the long-run population aging has been accompanied by improvements in elderly health. Several factors could account both for long-term improvements in elderly health and for increases in longevity at older ages. This project will use data on both recent and past populations to investigate the plasticity of aging to assess explanations for long-run trends in disease, disability, and death. Among the explanations considered will be reduced infectious disease rates, reduced occupational risk and improvements in socioeconomic status, and improved nutritional intake. The project will focus on the role of these factors in both older age and young adult health proxies to determine the timing of when infectious disease, occupational risk, socioeconomic status, and nutritional intake affect health declines. The project will examine the role of these factors not just in disease and mortality rates, but also in cognitive functioning at older ages. The project will also examine the social construction of disability by investigating changes in the relationship between disability and labor force participation. In addition, it will estimate the economic gains to improvements in chronic disease, disability, and death rates, apportioning the economic gains to those due to improvements in reduced infectious disease rates and to changes in socioeconomic status. The findings have implications for theories of aging; for forecasting future health and mortality trends; for assessing policies aimed at reducing the fiscal deficits in Social Security Old Age Insurance and Medicare; and for assessing the economic gains to investments in biotechnology and innovations in medical care.

Grant: 5R01AG019805-03
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: CUTLER, DAVID M PHD
Title: Understanding Disability Among The Elderly
Institution: NATIONAL BUREAU OF ECONOMIC RESEARCH CAMBRIDGE, MA
Project Period: 2001/09/30-2004/08/31

DESCRIPTION (provided by applicant): Life expectancy among the elderly is increasing at a rate of nearly 1 month per year. This dramatic improvement in longevity has led to questions about whether morbidity is falling as well, or whether additional years of life are in a less healthy state. A spate of recent evidence suggests that disability among the elderly has been falling at least for the past two decades (Allaire et al., 1999; Manton et al., 1997; Freedman and Martin, 1998, 1999), or at worst not increasing (Crimmins et al., 1997), and that people who live longer have less lifetime disability (Vita et al., 1998). This proposal seeks to understand disability trends among the elderly. The specific aims are: 1) to document trends in disability in different surveys, and reconcile differences across surveys; 2) to decompose changes in disability into changes in disease prevalence and changes in the extent of disability conditional on diseases; and 3) to differentiate among alternative economic and social explanations for declining disability. Three classes of theories in particular will be examined: (1) that disability change is a result of personal characteristics such as socioeconomic factors and individual behaviors; (2) that disability change results from changes in medical or assistive technologies; and (3) that disability change results from changes in the disease environment.

Grant: 3R01AG019805-03S1
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: CUTLER, DAVID M PHD ECONOMICS
Title: Understanding Disability Among The Elderly
Institution: NATIONAL BUREAU OF ECONOMIC RESEARCH CAMBRIDGE, MA
Project Period: 2001/09/30-2004/08/31

DESCRIPTION (provided by applicant): Life expectancy among the elderly is increasing at a rate of nearly 1 month per year. This dramatic improvement in longevity has led to questions about whether morbidity is falling as well, or whether additional years of life are in a less healthy state. A spate of recent evidence suggests that disability among the elderly has been falling at least for the past two decades (Allaire et al., 1999; Manton et al., 1997; Freedman and Martin, 1998, 1999), or at worst not increasing (Crimmins et al., 1997), and that people who live longer have less lifetime disability (Vita et al., 1998). This proposal seeks to understand disability trends among the elderly. The specific aims are: 1) to document trends in disability in different surveys, and reconcile differences across surveys; 2) to decompose changes in disability into changes in disease prevalence and changes in the extent of disability conditional on diseases; and 3) to differentiate among alternative economic and social explanations for declining disability. Three classes of theories in particular will be examined: (1) that disability change is a result of personal characteristics such as socioeconomic factors and individual behaviors; (2) that disability change results from changes in medical or assistive technologies; and (3) that disability change results from changes in the disease environment.

Grant: 5R01AG011705-08
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: FERRARO, KENNETH F. MA
Title: AGING AND HEALTH TRAJECTORIES AMONG BLACK & WHITE ADULTS
Institution: PURDUE UNIVERSITY WEST LAFAYETTE WEST LAFAYETTE, IN
Project Period: 1994/09/01-2004/08/31

DESCRIPTION (Adapted from the Applicant's Abstract): The overall aim of this study is to systematically examine the relationship between health trajectories and hospitalization among White and African-American adults over a 20-year period. It is well known that African Americans have more health problems than White Americans as manifested on most indicators of morbidity and mortality. Recent longitudinal studies also show that the health trajectories of African Americans decline more rapidly. This application describes work for a competing continuation project to examine patterns of hospitalization among Black and White adults to better understand health inequality in American society and the mechanisms for the more rapid health declines.

The research makes use of the National Health and Nutrition Examination Survey I: Epidemiologic Follow-up Study (NHEFS). The NHEFS is a 20-year panel study of adult Americans. The subjects studied were first interviewed during 1971-1975 and re-interviewed in 1982-1984, 1987, and 1992 (N=6,913 at baseline). Information on hospital episodes is drawn from hospital facility records over the 20 years. A prospective research design is used to evaluate health trajectories and hospitalization among Black and White men and women. Specific aims are to:

1. To examine differences in the patterns of hospitalization for Black and White adults; outcomes include risk of hospitalization, length of stay, rehospitalization, and potentially avoidable hospitalizations.
2. To model the relationship between hospitalization and health trajectories over 20 years among Black and White subjects while accounting for attrition with selection bias models (i.e., Heckman models).
3. To assess the relative influence of socioeconomic and health status, health behavior, and hospitalization experiences on mortality for Black and White adults. Special attention is given to differences in discharge instability and hospitalization during the last year of life.

The data for the proposed analyses provide the scientific community with hitherto unavailable information for understanding health trajectories and hospitalization in adulthood and later life among Black and White adults.

Grant: 5R01AG015815-04

Program Director: PATMIOS, GEORGEANNE

Principal Investigator: FRIES, JAMES F MD INTERNAL
MED:INTERNAL MEDICINE-
UNSPEC

Title: EXERCISE, DISABILITY, OSTEOARTHRITIS AND COSTS

Institution: STANFORD UNIVERSITY STANFORD, CA

Project Period: 2000/09/30-2005/08/31

DESCRIPTION: (Adapted from Investigator's Abstract) Physical disability is the most prevalent major health problem of aging populations, and the associated needs for medical services are large. Yet, while longitudinal studies of risk factors for cardiovascular disease have identified major modifiable risk factors and have led to strategies for reduction of morbidity and mortality, such studies in musculoskeletal disease remain in their infancy. This 20 year longitudinal study of 961 individuals studied from an average age of 58 in 1984 and due to reach age 78 in 2004 will (1) identify risk factors for physical disability, radiologic osteoarthritis, and associated use of medical services, (2) assess changes in exercise and other risk factors in terms of cumulative lifetime disability and cumulative health care utilization over time, and (3) establish risk factor models for osteoporotic fractures. The role of physical exercise is particularly emphasized. The investigators will assess development of disability, progression of disability, and risk factor models in minority as compared with predominately white non-Hispanic populations. The investigators state that this project is enabled by extensive previous work and a unique data set. They point out that the application extends their investigations into important new questions of cumulative morbidity and costs, analysis of costs and benefits, long-term disability and cost outcomes, risk factors in minority populations, and effects of changes in risk factor status upon disability, cost, and mortality outcomes. The application proposes to continue data acquisition into the eighth and ninth decades, the age when this cohort will experience the greatest degrees of disability, decline in health, and use of health services. The investigators state that the results will suggest public policy initiatives directed at decreasing lifetime morbidity and medical care costs through preventive mechanisms which reduce modifiable risk factors. They further state that the overall project objective is to understand how improvements in exercise and other risk factor status may retard functional decline and reduce the need for medical care.

Grant: 1R01AG021487-01A1
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: WAITE, LINDA J PHD
Title: National Social Life, Health and Aging Project
Institution: NATIONAL OPINION RESEARCH CENTER CHICAGO, IL
Project Period: 2003/09/30-2008/08/31

DESCRIPTION (provided by applicant): This study will explore health and well-being in American men and women age 57-84. We propose a nationally representative in-home survey of 3,000 non-institutionalized people to describe, for the first time, distributions of physical and psychocognitive health, illness, medication use, intimacy and sexuality among older adults and to evaluate the relationships among these components of health in different sociocultural contexts. Specifically, we aim to: 1) Describe health of older community-residing Americans: A) Describe distributions of physical and psychocognitive health, social networks and capital, illness, medication use and sexuality among older adults. B) Evaluate the relationships among these components of health in different sociocultural contexts. C) Evaluate the relationship between quality of life and health behaviors among older adults, including: sexuality, physical activity; nutrition; sleep; alcohol, tobacco and other substance use. 2. Evaluate the relationship between health and older adult sexuality, focusing on: A) Physical illness and disability: arthritis, Alzheimer's disease, cancer, cardiovascular disease, diabetes, obesity, urinary incontinence and sexually transmitted diseases including HIV/AIDS; B) Mental illness: depression, dementia, stress, anxiety, low self-esteem, poor body-image; C) Medication use: prescription, self-medication, and alternative remedies. 3) Examine sexuality within social networks and the encompassing sociocultural context: A) Evaluate the relationship of older adult sexuality to important life stages (retirement, divorce, widowhood, and formation of new partnerships including remarriage). B) Evaluate the relationship between sexuality and social embeddedness including: sociability, independence, loneliness, physical, emotional, and sexual abuse. C) Ascertain older adults' perceptions about the relationship of sexuality to health and their needs for physician-patient communication and health care services in this domain.

Grant: 3R37AG019905-02S1

Program Director: PATMIOS, GEORGEANNE

Principal Investigator: FRIED, LINDA P MD INTERNAL
MED:INTERNAL MEDICINE-
UNSPEC

Title: Pathogenesis of physical disability in Aging women

Institution: JOHNS HOPKINS UNIVERSITY BALTIMORE, MD

Project Period: 2001/09/30-2006/08/31

DESCRIPTION (provided by applicant): Disability in older adults is a frequent, adverse health outcome associated with aging. Population-based and clinical research indicates that disability in older adults is strongly associated with chronic diseases, both singly and in combination, and modified by a host of factors at the individual level. However, there is increasing evidence to suggest that pathogenic factors beyond chronic diseases may play significant roles in the development or progression of disability, as well as being associated with mortality in older adults. This study proposes to evaluate the role of three potential contributors to the pathogenesis of disability: inflammation, hormones, micronutrient deficiencies, singly, in combination, and in relation to existing diseases, impairments and frailty. We propose to evaluate these questions through analysis of already-collected data in the Women's Health and Aging Study (WHAS) I and its ancillary studies, the WHAS II and a study that collected blood, analyzed many measures and stored plasma and serum. WHAS I and II provide data on the 1/3 most disabled and the 2/3's least disabled older women living in the community, respectively. Older women are substantially more likely than older men to live disabled or dependent, and to require long-term care due to this. This study proposes to answer the following research aims using merged data sets that span the full spectrum of function in older women: a) to establish population norms and rates of change for pathogenic biomediators; b) to determine the degree to which these biomarkers explain disability status; c) to evaluate longitudinally the independent and interactive contributions of pathogenic biomediators to disability, over and above that of disease, and the potential role of frailty as a modifier of these relationships; d) to develop screening nomograms for clinical identification of those at high risk of severe disability and assess potential impact of interventions needed to meaningfully delay such progression; and e) produce a Monograph based on WHAS results that describes evidence for a causal pathway to disability and its risk factors. This proposed research is one of three studies that comprise an Interactive Research Project Grant designed to conduct next-generation analyses of the Women's Health and Aging Studies. These 3 projects will explore a range of biological, social and environmental risk factors for disability in older women. These 3 levels of evaluation are anticipated, singly and together, to provide substantive new understanding of opportunities for effective prevention and treatment of disability in older women.

Grant: 5R37AG019905-03

Program Director: PATMIOS, GEORGEANNE

Principal Investigator: FRIED, LINDA P MD INTERNAL
MED:INTERNAL MEDICINE-
UNSPEC

Title: Pathogenesis of physical disability in Aging women

Institution: JOHNS HOPKINS UNIVERSITY BALTIMORE, MD

Project Period: 2001/09/30-2006/08/31

DESCRIPTION (provided by applicant): Disability in older adults is a frequent, adverse health outcome associated with aging. Population-based and clinical research indicates that disability in older adults is strongly associated with chronic diseases, both singly and in combination, and modified by a host of factors at the individual level. However, there is increasing evidence to suggest that pathogenic factors beyond chronic diseases may play significant roles in the development or progression of disability, as well as being associated with mortality in older adults. This study proposes to evaluate the role of three potential contributors to the pathogenesis of disability: inflammation, hormones, micronutrient deficiencies, singly, in combination, and in relation to existing diseases, impairments and frailty. We propose to evaluate these questions through analysis of already-collected data in the Women's Health and Aging Study (WHAS) I and its ancillary studies, the WHAS II and a study that collected blood, analyzed many measures and stored plasma and serum. WHAS I and II provide data on the 1/3 most disabled and the 2/3's least disabled older women living in the community, respectively. Older women are substantially more likely than older men to live disabled or dependent, and to require long-term care due to this. This study proposes to answer the following research aims using merged data sets that span the full spectrum of function in older women: a) to establish population norms and rates of change for pathogenic biomediators; b) to determine the degree to which these biomarkers explain disability status; c) to evaluate longitudinally the independent and interactive contributions of pathogenic biomediators to disability, over and above that of disease, and the potential role of frailty as a modifier of these relationships; d) to develop screening nomograms for clinical identification of those at high risk of severe disability and assess potential impact of interventions needed to meaningfully delay such progression; and e) produce a Monograph based on WHAS results that describes evidence for a causal pathway to disability and its risk factors. This proposed research is one of three studies that comprise an Interactive Research Project Grant designed to conduct next-generation analyses of the Women's Health and Aging Studies. These 3 projects will explore a range of biological, social and environmental risk factors for disability in older women. These 3 levels of evaluation are anticipated, singly and together, to provide substantive new understanding of opportunities for effective prevention and treatment of disability in older women.

Grant: 5R37AG013196-08
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: MARMOT, MICHAEL G MBBS
Title: CHANGES IN HEALTH: SOCIO-ECONOMIC STATUS AND PATHWAYS
Institution: U OF L UNIVERSITY COLLEGE LONDON LONDON,
Project Period: 1996/04/01-2004/06/30

DESCRIPTION (adapted from investigator's abstract): The Whitehall II study of 10,308 male and female civil servants aged 35-55 years at entry (1985-1988), was established to examine the role of specific psychosocial, lifestyle, biochemical and physiological factors as possible explanations of these inequalities. True age related changes in these exposures, or cumulative exposure measured longitudinally, are hypothesized to predict changes in SES differences in health with age. At the 10-year follow up of the cohort, NIA support funded collection of data to repeat outcome measures of health functioning, cognitive functioning, components of the metabolic syndrome and ApoE genotyping. This application requests funding to analyze the data collected to date and to contribute to specific elements of the 15-year follow-up of the cohort. This funding will enable the investigators to accumulate more endpoints and track health functioning into older age, relate them to early life and mid-life exposures, and thereby allow us to establish psychosocial and biological pathways of disease and health inequalities. The aims of the application are: (1) To describe and explain patterns of change with age in health status in relation to SES; (2) To determine if the gradient in health functioning differs from pre-retirement to retirement; (3) To examine the relationship between SES and change in cognitive function with age; (4) To investigate specific biological pathways linking SES by examining the causes and consequences of their change with age. The Whitehall II study is uniquely poised to address these questions, offering: civil service grade as an excellent measure of SES; longitudinal design with participants comparatively young at entry allowing the detection of antecedents of change; repeated measures of exposures; a wide range of exposure data; substantial power to detect age-related change, and its interaction with SES; wide range of health outcomes including health and cognitive functioning, components of the metabolic syndrome, mortality, non-fatal diagnoses and sickness absence.

Grant: 5T32AG000158-15
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: BURING, JULIE E. MD
Title: TRAINING PROGRAM IN EPIDEMIOLOGIC RESEARCH ON AGING
Institution: BRIGHAM AND WOMEN'S HOSPITAL BOSTON, MA
Project Period: 1988/06/01-2005/04/30

DESCRIPTION: (From application). This proposal is a resubmission of a continuation of an ongoing program of graduate training in the epidemiology of aging, to prepare individuals for independent research and teaching careers in this area. The proposed program will admit two pre- and two postdoctoral trainees who will work towards an advanced degree in epidemiology from either the Harvard or Boston University Schools of Public Health. Training will include the following components: 1) Formal course work leading to a master's or doctoral degree in public health or epidemiology, with particular emphasis on epidemiology, biostatistics and aging. 2) A required new course on the epidemiology of aging; a required seminar session on issues in the responsible conduct of research specifically addressing concerns unique to the study of elderly persons; and participation in a seminar series on substantive areas relevant to the epidemiology of aging, as well as methodologic issue, related to aging research. 3) Research activities, in which each trainee will collaborate with a preceptor or preceptors on a number of projects to gain experience in the conception, design, conduct and analysis of a research project(s) leading to publication in peer-reviewed journals.

Research data bases available to the trainees include a community based cohort study of risk factors for morbidity, mortality and institutionalization in a free-living elderly population; a unique Medicaid-Medicare-Pharmacy Assistance for the Aged pharmacoepidemiologic data base on drug usage, physician encounters, hospitalization, and long-term care in an elderly population; the VA Normative Aging Study; and large-scale clinical trials and cohort studies evaluating risk factors for and treatment of age-related outcomes.

The goal of this training program is to facilitate the development of promising young academicians with commitment to the epidemiology of aging, into independent researchers and teachers.

Grant: 5T32AG000247-08

Program Director: PATMIOS, GEORGEANNE

Principal Investigator: FRIED, LINDA P MD INTERNAL
MED:INTERNAL MEDICINE-
UNSPEC

Title: Epidemiology and Biostatistics of Aging

Institution: JOHNS HOPKINS UNIVERSITY BALTIMORE, MD

Project Period: 1996/05/01-2006/04/30

DESCRIPTION (Adapted from the application): This application is for a 5-year renewal of an institutional training grant in the Epidemiology and Biostatistics of Aging, funded by NIA since 1996. The goals of this program are to continue to attract outstanding predoctoral and postdoctoral candidates to lead the next generation of quantitative research scientists addressing the health problems of our aging population. This program is conducted jointly by epidemiologists and biostatisticians with strong commitment to aging research, bringing together students in both disciplines to develop expertise in both the critically important content areas and methodologies essential to the further development of the field. The students are trained as researchers who can conduct leading-edge descriptive, analytic and experimental studies and develop, implement and evaluate prevention programs that compress the morbidity experience of the aging population. The program is based in the Departments of Epidemiology and Biostatistics, but involves faculty from other departments throughout the Schools of Hygiene and Public Health, Medicine, and Nursing. A Program Director and 3 Co-Directors from the two Departments, and 11 other core faculty will serve as Advisors for the trainees. There is a core curriculum expected of all predoctoral trainees, and customized to postdoctoral trainees, depending on their prior training. All trainees participate in biweekly research in progress conferences, seminars on aging, and practica specific to this program. Research experiences and mentors are carefully selected to ensure high quality research worthy of peer-reviewed publication in the areas of aging research. We would continue to train students in basic epidemiologic and biostatistical methods, and their application to important questions in the health status of older adults, including causes and consequences of chronic diseases, comorbidity, and disability in older adults. Students develop expertise in design and conduct of large-scale prospective studies; both observational and clinical trials; longitudinal data analysis; and health services for an aging population. We have expanded the original emphases of the program to include study of the molecular causes of age-related changes; the phenotype, consequences and etiology of frailty, including neuromuscular, inflammatory and hormonal etiologies; and the social epidemiology of aging. Graduates will be effective leaders of multidisciplinary research teams tracking the health problems associated with the aging US population.

Grant: 2T32AG000153-16
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: KASL, STANISLAV V PHD
Title: Research Training in the Epidemiology of Aging
Institution: YALE UNIVERSITY NEW HAVEN, CT
Project Period: 1988/07/01-2008/04/30

DESCRIPTION (provided by applicant): The primary purpose of the proposed program is to provide advanced training for conducting descriptive and analytic (etiologic) epidemiologic studies of the health, functioning, and well being of older persons. The broad orientation of the program is that of psychosocial epidemiology. The orientation combines concepts and techniques from the social and behavioral sciences with the rigorous application of quantitative epidemiologic methods. The interplay of clinical/biomedical and social/psychological influences on health provides the conceptual focus of this interdisciplinary training. Primary disciplines represented are: social and health psychology, medical sociology, psychiatry, medicine, epidemiology, and biostatistics. The emphasis is on advanced training and the training is tailor-made for each trainee. The primary method of training consists of: a) didactic instruction in the coursework which is at the center of the PhD in (chronic disease) epidemiology program at Yale, and b) the closely supervised research experience in the context of existing research programs and studies being carried out by the training faculty. We are now starting the 15th year of this training program at Yale. From the beginning, the program has represented a balance of pre-doctoral and post-doctoral training and was based on close collaboration with faculty in the Geriatrics section of the Department of Medicine at Yale. Over the last decade, the Geriatrics section has grown tremendously in strength of the faculty and the size of the research portfolio. Most significantly, the section now has its own training grant, AG 19134, Research Training in Geriatric Clinical Epidemiology, M. Tinetti, P.I. At the same time, the aging training program in the Department of Epidemiology has lost some faculty over the last decade. Because of these developments, in this competing renewal application we are proposing to scale down the training program. Specifically, we request support for four pre-doctoral trainees and no support for post-doctoral slots. The trainees will be primarily Ph.D. candidates in (chronic disease) epidemiology. In addition, Ph.D. candidates in biostatistics who will work with our biostatistics faculty on developing new techniques for the analysis of longitudinal data on older persons will also be eligible for support.

Grant: 2T32AG000262-06
Program Director: PATMIOS, GEORGEANNE
Principal Investigator: MAGAZINER, JAY PHD
Title: Research Training in the Epidemiology of Aging
Institution: UNIVERSITY OF MARYLAND BALT PROF BALTIMORE, MD
SCHOOL
Project Period: 1998/05/01-2008/04/30

DESCRIPTION (provided by applicant): The aging of the United States population is highlighted by the need for increased research on diseases and disabilities that affect older persons. The objective of this program is to train pre- and post-doctoral students to conduct independent and original research in the epidemiology of aging, with an emphasis on the prevention of late life disability and functional decline (i.e. tertiary prevention). The program emphasizes five broad substantive areas where training faculty have extensive gerontologic research experience and ongoing projects: musculoskeletal disorders; neurological disorders; minority aging and health disparities; women's health; and long-term care. The training program is designed to enable trainees to: 1) master a core curriculum in epidemiology and biostatistics; 2) become knowledgeable about the basic biological and psychosocial processes of aging which are fundamental to gerontology; 3) become expert in at least one substantive area relevant to the prevention of disability and functional decline in the elderly; 4) learn to contribute to a research team under the supervision of a primary mentor expert in a substantive area and a secondary mentor expert in epidemiology and/or biostatistics; and 5) demonstrate the capacity to conduct independent, original research. The program is located within the Department of Epidemiology and Preventive Medicine (DEPM) of the University of Maryland School of Medicine. Major strengths of the training program include: 1) integration into a small, well-established graduate program offering Doctor of Philosophy and Master of Science degrees in epidemiology and preventive medicine; 2) the availability of experienced mentors in substantive areas of aging research, as well as epidemiology and biostatistics; and 3) many interdisciplinary training and research opportunities in the DEPM and the University of Maryland CUM) System. The program director is recognized for his leadership nationally and within the UM System; as such, he is in an excellent position to foster the development of trainees through participation in interdisciplinary research programs locally and nationally. The program is guided by an external advisory committee of nationally, recognized experts in interdisciplinary and gerontological research and training.

Grant:	2U01AG007198-16A1	
Program Director:	PATMIOS, GEORGEANNE	
Principal Investigator:	MANTON, KENNETH G	PHD
Title:	Functional and Health Changes of the Elderly	
Institution:	DUKE UNIVERSITY	DURHAM, NC
Project Period:	1987/07/01-2005/09/30	

REVISED DESCRIPTION (provided by applicant): It is proposed to conduct a 2004 National Long Term Care Survey (NLTCs) of the U.S. population aged 65+ to analyze trends in the population risks of chronic disability, severe cognitive impairment, and mortality. The disability and health sections of this survey will form a consistent time series comprised of the 1982, 1984, 1989, 1994, 1999 and now 2004 NLTCs. The 2004 NLTCs data will be released rapidly to other researchers.

Grant:	3U01AG007198-16A1S1	
Program Director:	PATMIOS, GEORGEANNE	
Principal Investigator:	MANTON, KENNETH G	PHD SOCIOLOGY:HUMAN ECOLOGY/DEMOGRAPHY
Title:	Functional and Health Changes of the Elderly	
Institution:	DUKE UNIVERSITY	DURHAM, NC
Project Period:	1987/07/01-2005/09/30	

REVISED DESCRIPTION: This supplement is provided by DHHS/ASPE. This supplement funds an Informal Caregivers' Survey (ICS) as part of the 2004 wave of the National Long Term Care Survey (NLTCS). The 2004 ICS will interview a primary informal caregiver for every sample member in the NLTCS who reports having a primary caregiver. In addition, the primary formal (i.e. paid) caregiver will be interviewed in the case of sample members who report relying exclusively on assistance from formal caregivers.